

ORIGINALLY ADOPTED: 09/06/89
DATE AMENDED: 7/23/97; 10/24/07
SUBJECT: FOREST PRACTICES
RESOLUTION NO: 388-89; 059-97;
175-07

CONFEDERATED TRIBES OF THE GRAND RONDE
COMMUNITY OF OREGON

FOREST PRACTICES ORDINANCE
TRIBAL CODE §6.20

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Part I
General Provisions

(a) PURPOSE AND AUTHORITY:

(1) This Ordinance, establishes rules for the management of natural resources on Tribal trust lands. The Ordinance will ensure the responsible growing and harvesting of timber; and will provide the necessary protection of environmental resources such as air, water, soil, fish, wildlife, and recreation.

(2) Authority for this Ordinance is found in the Tribal Constitution Article III, Section 1, and the National Indian Forest Resources Management Act, Public Law No. 101-630.

(b) DEFINITIONS:

(1) "Active Roads" shall mean roads currently being used or maintained for the purpose of removing commercial forest products.

(2) "Aquatic Area" shall mean wetted area of streams, lakes and wetlands up to the high water level. Oxbows and side channels are included if they are part of the flow channel or contain fresh water ponds.

(3) "Bankfull Width" shall mean the width of a stream channel at a flow rate with a Return Period of approximately 1.5 years.

(4) "Basal Area" shall mean the area in square feet of the cross section of a tree bole measured 4 ½ feet above the ground.

(5) "Buffer Strip" shall mean a protective area adjacent to an area requiring special attention or protection.

(6) "Channel Migration Zone" shall mean the area where water traveling through an active stream channel is prone to move.

(7) "Chemicals" includes herbicides, insecticides, rodenticides, fertilizers, and adjuvants.

(8) "Contaminate" shall mean the presence in the atmosphere, soil, or water of sufficient quantities of chemicals as may be injurious to public health, safety, or welfare, or to domestic, commercial, industrial, agricultural, or recreational uses, or to livestock, wildlife, fish, or other aquatic life.

(9) "Decay Class" shall mean one of the following:

Class	Bark	Twigs	Texture	Shape	Color
1	Intact	Present	Intact	Round	Original Color
2	Intact	Absent	Intact-Soft	Round	Original Color
3	Absent	Absent	Hard, Large	Round	Original color-faded
4	Absent	Absent	Small, Soft	Oval	Light brown, red

(10) "Desired Future Condition" shall mean the usual condition of a mature riparian forest at 200+ years of age.

(11) "Downed Woody Debris" shall mean fallen trees.

(12) "Equipment Limitation Zone" shall mean a 25-50 foot wide buffer measured horizontally from the bankfull width of a Type 3 Stream where timber harvest is allowed but ground-disturbing equipment is restricted to authorized stream crossings.

(13) "End Hauling" shall mean in road construction, hauling material to a designated area as opposed to side casting the material.

(14) "Established Seedling" shall mean a seedling of acceptable forest tree species which has survived two years on the site.

(15) "Fertilizers" shall mean any substance or any combination or mixture of substances designed for use principally as a source of plant food.

(16) "Filling" shall mean the deposit by artificial means of any materials, organic or inorganic.

(17) "Forest Land" shall mean land for which a primary use is the growing and harvesting of forest tree species.

(18) "Herbicides" shall mean any substances used to destroy, repel or mitigate any weed or to prevent or retard undesirable plant growth.

(19) "High Risk Areas" shall mean lands determined by the NRD Manager to have a significant potential for destructive mass soil movement or stream damage because of topography, geology, biology, soils, or intensive rainfall periods.

(20) "High Risk Sites" shall mean specific locations determined by the NRD Manager within high risk areas. A high risk site may include, but is not limited to: slopes greater than 65 percent, steep headwalls, highly dissected land formations, areas exhibiting frequent high intensity rainfall periods, faulting, slumps, slides, or debris avalanches.

(21) "High Water Level" shall mean the stage regularly reached by a body of water at the peak of fluctuation in its water level. "High Water Level" is often observable as a clear, natural line impressed on the bank. It may be indicated by such characteristics as terracing, changes in soil

characteristics, destruction of vegetation, presence or absence of litter or debris, or other similar characteristics.

(22) "Inner Gorge" shall mean a canyon created by a combination of the downcutting action of a stream and mass movement on the slope walls.

(23) "Insecticides" shall mean any substances used to destroy, repel, or mitigate any insect.

(24) "Intermittent stream" shall mean a stream that is not perennial but is physically connected by a defined channel to a downstream waterbody so that water or sediment initially delivered to the stream may eventually be delivered to a Type 1 or 2 stream.

(25) "Large Woody Debris" or "LWD" shall mean whole and parts of fallen trees that are within, partially within, or suspended over the bankfull stream channel.

(26) "NRD" shall mean the Tribe's Natural Resources Department.

(27) "Old Forest Habitat" shall mean a stand of forest with:

(A) A canopy closure of 60% or more and a layered, multi-species canopy where 50% or more of the canopy closure is provided by large conifer trees;

(B) Three or more snags or trees 20 inches dbh or larger and 16 feet or more in height per acre, with deformities such as large cavities, broken tops, dwarf mistletoe infestations, or other indications of decadence; and

(C) Approximately 3500+ ft³/acre of downed woody debris that includes 525 ft³/ acre of decay class 1 + 2 and 2975 ft³/ acre of decay class 3 + 4.

(28) "Perennial Initiation Point" shall mean the place where perennial flow of a stream begins.

(29) "Perennial Stream" shall mean a waterbody downstream from a perennial initiation point.

(30) "Return Period" shall mean, in reference to a stream flow rate, the mean number of such time units necessary to obtain a value equal to or greater than a certain value one time. For example, assuming that the relevant time unit is one year and the relevant flow rate is 5,000 cubic feet per second (cfs), a return period of 100 years means that, on the average, a stream flow event of 5,000 cfs or greater is not expected to occur more often than once in 100 years.

(31) "Riparian Areas" shall mean wet soil areas next to streams, lakes, estuaries and wetlands. They are usually characterized by high water tables.

(32) "Riparian function" shall mean a riparian feature important to both riparian forest and aquatic system conditions, such as bank stability, the recruitment of woody debris, leaf litter fall, nutrients, sediment filtering, and shade.

(33) "Riparian Management Zone" or "RMZ": shall mean the area protected on each side of a Type 1, 2, or 3 Stream measured horizontally from the bankfull width or the channel migration zone, whichever is greater.

(34) "Sapling" shall mean live trees of commercial species, less than 11 inches in diameter taken at breast height of good form and vigor.

(35) "Significant Summertime Cooling Influence" means that volume of water that is large enough and at such temperature that it will maintain or reduce the temperature in a downstream Type 1 Stream.

(36) "Side Casting" shall mean in road construction, pushing material over the side of the road.

(37) "Significant Wetlands" shall mean land areas that are regularly inundated or saturated with water, such that the areas noticeably support populations of plant species that are commonly known as water-tolerant or wetland species.

(38) "Stand Requirement" shall mean a number of trees per acre, the basal area, and the proportion of conifer in the inner and outer zone of a riparian management zone so that the growth of the trees would meet the basal area target of 250 square feet per acre when the stand is 200+ years old.

(39) "Stream-Adjacent Parallel Road" shall mean a road in a riparian management zone that has an alignment parallel to the general alignment of the stream, including without limitation stream crossings where the alignment of the road continues to parallel the stream for more than 250 feet on either side of the stream.

(40) "Tailhold" shall mean a tree or stump that has a cable or strap attached to it that provides an anchor point for a piece of logging equipment.

(41) "Transition Zone" shall mean a segment of stream directly above the point where fish presence ends that significantly influences fish-bearing waters downstream.

(42) "Type 1 Stream" shall mean a segment of natural waters within the bankfull width of a defined channel that is a fish-bearing stream.

(43) "Type 2 Stream" shall mean a segment of natural waters within the bankfull width of a defined channel that is a perennial water of non-fish-bearing stream.

(44) "Type 3 Stream" shall mean a segment of natural waters within the bankfull width of a defined channel that is not a Type 1 or 2 Stream and which is an intermittent non-fish-bearing stream.

(45) "Vacated Roads" shall mean roads that have been made impassable and are no longer to be used for forest management purposes or commercial forest harvesting activities.

(46) "Water Bar" shall mean a diversion ditch and/or hump in a trail or road for the purpose of carrying surface water runoff into the vegetation and duff so that it does not gain the volume and velocity which causes soil movement or erosion.

(47) "Wetlands" shall mean those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands include marshes, swamps, bogs, and similar areas. Wetlands do not include water developments.

(48) "Written Plan" shall mean a plan submitted by a NRD staff member which describes how the operation will be conducted to comply with the applicable rules of the "Forest Practices Ordinance."

(c) STATE NOTIFICATION:

(1) Notification shall be given to the State Department of Forestry for the following types of operations:

(A) The harvesting of forest crops including felling, bucking, yarding, decking and hauling, road construction or improvement within the operation area described, and treatment of slashing.

(B) Road Construction or reconstruction of existing roads not within operation areas.

(C) Site preparation.

(D) Clearing forest land for change to non-forest uses.

(E) Precommercial thinning during fire season.

Part II
Rules and Regulations

(d) PETROLEUM PRODUCTS:

(1) Adequate precautions will be taken to prevent leakage or accidental spillage of any petroleum products into the waters of the Reservation.

(e) SURFACE MINING:

(1) The development and use of surface mining operations which are located on forest lands, from which materials are to be utilized for future forest access roads or other supporting forest management activities, shall be done so as to protect water quality, retain soil stability, and provide for general safety during mining operations and after the operations have ceased.

(2) Overburden, solid wastes and petroleum products shall be prevented from entering waters of the Reservation.

(3) Stabilize banks, headwalls, and other surfaces of quarry sites in order to prevent surface soil erosion or mass soil movement.

(4) When the site is abandoned as a material source, it will be left in the condition described in subsections (1) and (2) above.

(f) RIPARIAN MANAGEMENT ZONES:

(1) Declarations. The Tribal Council hereby finds and declares that it is important to protect aquatic resources and related habitat on the Grand Ronde Reservation through the enactment of special management rules for riparian management zones on the Reservation.

(2) Riparian Management Zone (“RMZ”) Width Standards.

(A) Type 1 Streams. The following RMZ widths will be used for Type 1 Streams:

Inner Zone Width	Outer Zone Width	Total Width Target Average	Total Width Target Range	Total Width Range
150 Feet	0-200 Feet	250 Feet	225-275 Feet	150-350 Feet

(B) Type 2 Streams. The following RMZ widths will be used for Type 2 Streams:

Type 2 Stream	Inner Zone Width	Outer Zone Width	Total Widths
Buffer A	50-75 Feet	0-25 Feet	50-100 Feet
Buffer B	75-100 Feet	25-50 Feet	100-150 Feet

(C) To determine whether to use Buffer A or Buffer B for a Type 2 Stream, the NRD Manager will determine if any of the following conditions apply:

- (i) The stream adjacent to the proposed harvest activity is within a transition one.
- (ii) The slope of the hillsides within 150 feet of the stream and adjacent to the proposed harvest area are greater than 60% for any inner gorge, 65% for any concave slope, or 70% for any planar slope.
- (iii) The onsite soil types are highly or extremely erodible and the harvest activity will increase the risk of sediment reaching the adjacent stream.
- (iv) There is an area of landslide risk within 150 feet of the stream.

If none of the above conditions are present, Buffer A applies. If any of the above conditions are present, Buffer B applies.

(D) Type 3 Streams. Type 3 Streams will have a RMZ width of between twenty five and fifty feet. The purposes for providing an RMZ on a Type 3 Stream will be to provide bank protection, reduce slope failure potential, and act as a sediment filter for upslope harvest activities. For purposes of this Ordinance, the RMZ for Type 3 Streams will be considered an equipment limitation zone (See Section (3)(C) below).

(E) Lakes and Significant Wetlands. The RMZ width for any lake or Significant Wetlands is as follows:

(i) For lakes or significant wetlands less than 1 acre, the RMZ width will average 50 feet.

(ii) For lakes or significant wetlands between 1 and 5 acres, the RMZ width will average 100 feet.

(iii) For lakes or significant wetlands between 6 and 10 acres, the RMZ width will average 150 feet.

(iv) For lakes or significant wetlands over 10 acres, the RMZ width will average 200 feet.

(3) Activity Standards Within Riparian Management Zones.

(A) For Type 1 and Type 2 Streams, the activity standards within riparian management zones are separated into inner and outer zones:

(i) Inner Zones. No timber harvest or construction is allowed in an inner zone except operations related to (a) riparian or instream enhancement or restoration or (b) road construction or maintenance. Any trees cut for or damaged by yarding corridors in an inner zone must be left on the site. Any trees cut as a result of road construction to cross a stream may be removed from the site, unless used as part of a large woody debris placement project or needed to comply with downed woody debris requirements.

(ii) Outer Zones. Thinning and salvage timber harvesting is allowed within an outer zone, but a minimum of 25 or more conifers will be left per acre in the outer zone after harvest. These conifers will represent all diameter classes and can be clumped or scattered throughout the outer zone. The NRD Manager has the discretion to declare an outer zone unsuitable for harvest activities, whereupon the inner and outer zones will be treated as a single inner zone.

(iii) Stand Requirements for Inner and Outer Zones. The stand requirement must be met within the inner and outer zones before harvest prescription occurs within the outer zone. For stands less than 200 years old the NRD Manager will use a forest projection model to determine the appropriate thinning level for that stand so that it meets the stand requirement when it reaches 200 years old.

(B) Roads Adjacent to Type 1 and 2 Streams.

Where a stand requirement cannot be met within an inner and outer zone due to the presence of a stream-adjacent parallel road, the NRD Manager will determine the approximate basal area (or trees per acre) that would have been present if the road was not occupying space in the RMZ. If the stand requirement cannot be met, or if the zones contain insufficient riparian leave trees, substitute riparian leave trees will be added to the RMZ or left within the RMZ of other Type 1 Streams in the same harvest unit or along Type 2 or 3 Streams in the same harvest unit in addition to all other RMZ requirements on those same Type 1, 2, or 3 Streams. When the stream-adjacent road basal area or trees per acre calculated results in a basal area or trees per acre that exceeds the minimum stand requirement, then such excess can be applied on a basal area or trees per acre basis against the obligation to leave trees in the outer zone of the RMZ of such stream within the same harvest unit, provided that the number of trees per acre in the outer zone is not reduced to less than 20 trees per acre.

(C) Equipment Limitation Zones.

The NRD Manager will require on-site mitigation if any of the following activities is expected to disturb more than 10% of an Equipment Limitation Zone:

- (i) ground based equipment;
- (ii) skid trails;
- (iii) stream crossings (other than existing roads); or
- (iv) cabled logs that are partially suspended.

Mitigation must be designed to replace the equivalent of lost functions especially prevention of sediment delivery.

(D) Stream Bank Integrity. To protect stream bank integrity in any RMZ for Type 1 or 2 Streams, the operator will:

- (i) avoid disturbing brush and similar understory vegetation;
- (ii) avoid disturbing stumps and root systems and any logs embedded in the bank;
and
- (iii) not disturb trees that display large root systems embedded in the bank.

(E) Cable Yarding.

No timber will be cable yarded in or across a Type 1 or 2 Stream except where the logs will not materially damage the bed of any waterbody, stream bank or RMZ. If yarding

across Type 1 or 2 Streams is permitted, then yarding is limited to cable or other aerial logging methods. Cable yarded logs must be fully suspended above the water. Yarding corridors must be no wider or more numerous than necessary to accommodate safe and efficient transport of logs. Unless otherwise approved by the NRD Manager, yarding corridors should be located no closer to each other than 150 feet (measured edge to edge) and should be no wider than 30 feet. Total openings from yarding corridors will not exceed 20% of the stream length associated with the timber harvest. When changing cable locations, care must be taken to move cables around or clear of the riparian vegetation to avoid damage to riparian vegetation.

(F) Tailholds.

Riparian leave trees that are used as tailholds shall be protected from excessive damage. No logging equipment will be attached to a tailhold reserve tree so that it completely wraps the tree. Tailhold precautions may include, without limitation (i) using straps held in place by a shallow notch not to exceed more than half the circumference of the tree, and (ii) placing large branches or cut saplings vertically between the side of the tree and the cable. Riparian leave trees used as tailholds shall be left after harvest activities have been completed. Riparian tailhold trees that are a safety hazard during harvest activities can be cut down but will be left as riparian downed woody debris.

(G) Ground-Based Skidding.

The following standards will apply when ground-based skidding is conducted within a riparian management zone:

- (i) Tractor or wheeled skidders will not be used within a riparian management zone along Type 1 or 2 streams.
- (ii) Only mechanical harvesters or forwarders with wide, high floatation tires that have a ground pressure no greater than 10 pounds per square inch may be used within a riparian management zone along Type 1 or 2 streams.
- (iii) Only approved equipment for instream improvement projects conducted during the instream work period will be allowed in Type 1 or 2 streams.
- (iv) Ground-based skidders will not be used on exposed erodible soils or saturated soils when soil moisture content is so high that unreasonable soil compaction, soil disturbance, or wetland, stream, lake or pond siltation would directly result.
- (v) Skidding across any flowing small Type 2 stream (less than 3 feet bankfull width) or Type 3 stream will be minimized, and when done, temporary stream crossings will be used to maintain streambed integrity and water quality.

(vi) All temporary stream crossing structures will be removed after completion of operations or prior to seasonal runoff.

(vii) Whenever skidding in or across any small Type 2 or Type 3 stream, the direction of log movement between stream banks shall be as close to right angles to the stream channel as is practical.

(viii) Where skidding in or through the riparian management zone is necessary, the number of skidding routes through the zone shall be minimized.

(ix) Logs shall be skidded so as to minimize damage to stems and root systems of residual timber, young reproduction, and other vegetation in the riparian management zone, to the extent practical and consistent with good safety practices.

(x) Logs shall be skidded at least with one end suspended from the ground so as to minimize soil disturbance and damage to leave trees and vegetation in the riparian management zone.

(xi) Logs firmly embedded in the bed or bank of Type 1, 2, or 3 Streams will not be removed or unnecessarily disturbed.

(H) Salvage Logging.

The following standards will apply when salvage logging is conducted within a riparian management zone:

(i) No salvage logging may take place within the bankfull width of any stream.

(ii) No salvage may take place within the RMZ inner zone or a channel migration zone, including any portion of those trees that may have fallen outside of these zones.

(iii) Salvage of existing downed wood may take place within an equipment limitation zone of a Type 3 Stream if the amount of downed wood within the equipment limitation zone is sufficient to meet the upland downed woody debris guidelines stated in the Tribe's current Natural Resources Management Plan ("NRMP") (2,500 cubic feet per acre minimum according to 2003-2012 NRMP).

(iv) Salvage may not take place within the outer zone if the stand requirements cannot be met by the residual stand. No downed wood will be salvaged if the balance of downed wood is insufficient to meet the downed woody debris requirements stated in Section (I) below. Salvage within the outer zone must be conducted so as to protect residual undamaged trees within the outer zone.

(I) Downed Woody Debris (“DWD”).

The NRD Manager will ensure that the following standards for DWD will be met within all RMZs:

- (i) The total volume of DWD within both inner and outer zones of a riparian management zone will be at least 3,500 cubic feet per acre.
- (ii) The required volume of DWD within a riparian management zone, by decay class, will be as follows: (a) for Decay Classes 1 and 2, the total volume will be 525 cubic feet per acre, and (b) for Decay Classes 3 and 4, the total volume will be 2,975 cubic feet per acre.

(J) Thinning.

A forest stand within the outer zone of an RMZ can be thinned harvested to the following standards:

- (i) Pre-Commercial Thinning (15-25 yrs old): 150-300 Trees/Acre.
- (ii) Commercial Thinning (30-90 yrs old): A minimum of 25 of the largest conifer trees per acre must be left after harvest, such that the thinned stand after harvest will be capable of meeting the stand requirement and desired future condition of 250 sq. ft. per acre when the stand reaches 200 years of age.

No pre-commercial thinning may take place within the bankfull or channel migration zones within the inner zone of any RMZ for a Type 1 or 2 Stream. When pre-commercial thinning is allowed within the inner zone of any Type 1 or 2 Stream, then the first two rows of trees from the edge of the bankfull width will not be harvested. No commercial thinning may take place within 50 feet of a Type 1 Stream or within 25 feet of a Type 2 Stream on a slope less than 60%. To the extent possible, any slope break may be used as the thinning buffer boundary for thinning, provided the slope break is equal to or greater than 50 feet away from the stream for Type 1 and 25 feet away for Type 2 Streams. If slumps are present within the RMZ, the buffer boundary will be placed around them and at least 25 feet uphill from the upper slope break of the slump.

(K) Haul Routes.

Haul routes shall be closed or mitigation measures will be conducted if the road moisture content is so high that unreasonable soil compaction, soil disturbance, or wetland, stream, lake, or pond siltation will occur. Hauling shall be closed when road conditions generate excessive sediment, such as during intense or prolonged rainfall, and when the road surface begins to deteriorate as evidenced by the increasing presence of surface mud, ruts and puddles. Mitigation measures include but are not limited to the following: 1) spot rocking or re-grading the road, 2) using straw bales or other sediment catching material or devices where sediment may directly enter into a stream, or 3) rerouting water or

sediment to stable soils. If mitigation measures do not work then hauling will be closed until conditions are improved.

(L) Large Woody Debris (“LWD”).

All streams will comply with the following LWD requirements:

(i) Key pieces of LWD must be a minimum length of 1.5 times bankfull width or 50 feet.

(ii) Key pieces of LWD must have a diameter of 24” inches (60 cm).

(4) Cultural Resources. Cultural surveys will occur prior to any management activity within a riparian management zone, including without limitation instream and riparian restoration and enhancement projects. Identified culturally significant sites will be protected consistent with recommendations of the Tribe’s Cultural Resources Department.

(g) CHEMICAL APPLICATION:

(1) The purpose of these rules is to regulate the handling, storage, and application of chemicals to assure their proper use and avoid contamination of non-target areas, especially Reservation waters.

(2) Equipment used for transportation, storage, or application of chemicals shall be leak proof.

(3) Water Quality. If water is taken from any stream or water impoundment for chemical mixing, then the following precautions shall be taken:

(A) Provide an air gap or reservoir between the water source and mixing tank, or

(B) Use a portable pump with the necessary suction hose, feed hoses and check valves to supply tanks with water from streams. The equipment shall be used only for water.

(4) Protection. Necessary precautions shall be taken to protect waterways and areas of open water such as swamps or impoundments from contamination when applying chemicals.

(A) Aerial application: Leave an unsprayed strip at least one hundred (100) feet on each side of every Type 1 and 2 stream.

(B) Aerial application: Leave an unsprayed strip at least twenty five (25) feet on each side of every Type 3 stream.

(C) Aerial application: Inhabited dwellings: Leave a five hundred (500) foot unsprayed strip around inhabited dwellings.

(D) Ground application: Open Water: Leave an unsprayed strip at least ten (10) feet on each side of every stream or area of open water.

(5) Fertilizers. Precautions shall be taken to avoid direct application of fertilizers to streams or areas of open water.

(6) Mixing of Chemicals. Mix chemicals or clean tanks or equipment only where chemicals will not contaminate waters. Mixing areas and aircraft landing areas shall be located where spillage of chemicals will not endanger waters. If any chemical is spilled, take immediate and appropriate action to contain or neutralize it.

(7) Chemical Application. Apply chemicals only in accordance with currently recognized Federal and State procedures.

(A) Rinse chemical containers with water at least three (3) times.

(B) Do not re-use chemical containers unless properly treated.

(C) Disposal of chemical containers shall be in accordance with approved disposal requirements.

(8) Chemical Application Records. When using chemicals as a forest management tool, a daily record of the spray operations shall be maintained as follows:

(A) Name of monitor and applicator.

(B) Project name and location.

(C) Hourly temperature.

(D) Hourly wind velocity and direction.

(E) Contractor's name and pilot's name.

(F) Name of chemical used.

(G) Application rate, carrier and mixer used.

(H) Disposal methods of empty containers.

(I) The spray records shall be kept for at least 3 years.

(9) Chemical Accidents. Take immediate action to contain and prevent further contamination to the environment. Report immediately all chemical accidents to the appropriate agency.

(h) SLASH DISPOSAL:

(1) Treatment of slashing is recognized as a necessary tool for the protection of reproduction and residual stands from the risk of fire, insects and disease, to prepare the site for future productivity and to minimize the risk of material entering streams. Such treatment may employ the use of mechanical processes, fire, chemical or other means to minimize competitive vegetation and residue from harvesting operations.

(2) Disposal Operations. Operations on Reservation lands shall be planned and implemented to optimize conditions for regeneration of forest tree species, to maintain productivity of forest land, to protect air and water quality, and to protect fish and wildlife habitat. Some of the methods implemented will be as follows:

(A) Reduce the volume of debris by:

(i) Well planned and supervised felling and bucking practices to minimize breakage.

(ii) Increased utilization of wood fiber such as salvaging, prelogging, and relogging when a market exists.

(iii) Stage cutting where applicable, with successive cuts delayed until slashing created by previous operations is reduced.

(B) Dispose of slash by:

(i) Scattering of slash.

(ii) Piling or windrowing of slash.

(iii) Mechanized chopping.

(iv) Controlled burning.

(C) Dispose of, or disperse, unstable slash around landings to protect their entry into streams.

(D) When treating competing vegetation, plan harvesting practices to break up or destroy such vegetation. If necessary, follow up with applications of chemicals and/or burning.

(E) If burning is the means of slash or competitive vegetation treatment, it shall be done in a manner to adequately protect reproduction, residue timber, soil surfaces, and riparian areas.

(3) Whenever disposal of slash is to be accomplished by burning, such burning shall be accomplished under such conditions of weather that will assure adequate maintenance of air quality. Burning shall be done in cooperation with Oregon's Smoke Management Program.

(i) REFORESTATION:

(1) Prompt reforestation of forest land following harvesting operations is an important factor in assuring continuous growing and harvesting of forest tree species. The purposes of rules relating to reforestation are to describe the conditions under which reforestation will be required; to specify the minimum number of trees per acre and the maximum period of time allowed after an operation for establishment of such trees; and to require stabilization of soils which have become exposed as a result of operations.

(2) Lands Affected. All forest lands are subject to reforestation requirements, except where the conversion of forest lands to non-silvicultural uses is expressly approved by the NRD Manager and in accordance with the Tribe's NRMP and other applicable regulations, including without limitation wildlife grass meadows, rock quarries, and roads.

(3) Stocking Level. At least 250 well distributed seedlings, saplings, or a combination of both shall be established on each acre in which the stocking was reduced by harvesting.

(4) Compliance and Time Determination. Compliance with the minimum stocking standards shall be achieved at the end of five (5) growing seasons following operations.

(A) Determination of time for establishment of seedlings shall be based on completion of the logging operations and removal of equipment. When smoke management restricts the burning of slash, an extension equal in time to the restriction period will be added to the time of establishment.

(5) Acceptable Species. For those lands subject to the reforestation requirement, the NRD Manager shall maintain a list of forest tree species acceptable as stocking. The list shall consist of those species normally marketable and native to the site.

(j) REHABILITATION:

(1) Rehabilitation of sites containing undesirable species may be accomplished by controlled burning, chemical application, mechanical clearing or any combination. On mechanical clearing projects, minimize compaction and movement of top soil.

(k) NON-REFORESTED LANDS:

(1) One year following harvesting on lands not subject to the reforestation requirement, and on which reforestation is not being planned, adequate vegetation cover shall be established to provide continuing soil productivity and stabilization. Consider the use of native wildlife habitat plants.

(1) ROADS:

(1) A well located, constructed and maintained system of forest roads is an essential element of responsible forest management.

(2) Road Location. The NRD Manager shall ensure that the location of a proposed road minimizes the risk of material entering waters.

In so doing, he shall:

(A) Fit the road to the topography of the area.

(B) Avoid locating roads in steep, narrow canyons, slide areas, steep headwalls, slumps, marshes, meadows, riparian management zones, or existing drainage channels where practical alternatives exist.

(C) Avoid locating roads on high risk areas if practical alternatives exist.

(D) Minimize road density in high risk areas whenever practical alternatives exist.

(E) Minimize the number of stream crossings.

(F) When it is practical, cross streams at right angles to the main channel and leave or re-establish areas of vegetation between roads and streams.

(3) Road Design. The NRD Manager shall ensure each road meets the minimum use standards adapted to the terrain and soil materials, so as to minimize disturbances to existing drainage and damage to water quality.

In so doing, he shall:

(A) Designate end-hauling where disposal of excess material from high risk sites is indicated.

(B) Design roads no wider than necessary to accommodate the immediate anticipated use.

(C) Design cut and fill slopes to minimize the risk of mass soil movement.

(D) Design culvert installations to prevent erosion of the fill.

(E) Design water crossing structures to provide for adequate fish passage, minimum impact on water quality, and the fifty (50) year frequency storm.

(F) Design roads to drain naturally by outsloping and through grade changes wherever possible. Where outsloping is not feasible, use roadside ditches and culverts.

- (G) Provide dips, water bars, and cross drainage on all temporary roads.
- (H) Whenever practical, avoid diverting water from natural drainage ways. Dips, water bars and cross drainage culverts should be placed above stream crossings, so that water may be filtered through vegetative buffers before entering waters of the reservation.
- (I) Provide drainage where surface and groundwater cause slope instability.
- (J) Select stable areas for disposal of end-haul materials. Avoid overloading areas which may become unstable from additional material loading.
- (K) Design roads so that water is not concentrated into high risk sites.

(4) Construction. The NRD Manager shall ensure that debris, overburden and other materials associated with road construction shall be placed in such a manner as to prevent entry into the waters of the Reservation.

In so doing, he shall ensure:

- (A) Deposit end-haul and other excess material in stable locations above the high water level.
- (B) Clear drainage ways of woody debris generated during road construction and maintenance.
- (C) Stabilize exposed material which is potentially unstable or erodible by use of seeding, compacting, riprapping, benching, leaving light slashing, or other suitable means.
- (D) In the construction of road fills, compact the material to reduce the entry of water and minimize the settling of fill material.
- (E) Construct stream crossings that result in minimum disturbance to banks, existing channels, and riparian management zones. Temporary crossing structures shall be removed promptly after use, and where applicable, approaches to the crossings shall be water barred.
- (F) Keep machine activity in beds of streams to an absolute minimum. Prior approval shall be obtained for machine activity in any Type 1, 2, or 3 Stream.
- (G) Install drainage structures on live streams as soon as feasible. Newly constructed road grades subject to washing before grading should be adequately cross-drained.
- (H) Retain outslope drainage during construction operations and remove all berms on the outside edge except those intentionally constructed for protection of road grade fills.

(I) Keep soil disturbance to a minimum by constructing roads when soil moisture conditions are favorable.

(J) Prevent slash, logs and other large quantities of organic material from being incorporated into road fills and landings.

(5) Road Maintenance. The NRD Manager shall provide for maintenance of active and inactive roads sufficient to maintain a stable surface, to keep the drainage system operating, and to protect water quality. This shall include the following:

(A) Clean culvert inlets and outlets, drainage structures and ditches before and during the rainy season to diminish danger of clogging and possible washouts.

(B) Restore road surface crown or outslope all roads prior to the rainy season.

(C) After discontinuing the active use of a road, maintain the road to the degree of providing appropriate drainage and soil stability.

(D) When it is the intention to vacate a road or "put a road to bed," the road shall be posted "closed" and shall be blocked to prevent continued use by vehicles, and the road shall be left adequately drained and stabilized.

(E) Plan applications and apply road oil or other surface stabilizing material in such a manner as to prevent their entry into waters of the Reservation.

(F) Maintain and repair active and inactive roads as needed to minimize damage to waters of the Reservation.

(G) Place material, removed from ditches, in a stable location.

(m) HARVESTING:

(1) Harvesting operations are recognized as causing a temporary disturbance to the forest environment. These rules are established as standards for forest practices to maintain the productivity of the forest land, to minimize soil and debris entering waters of the Reservation, and to protect wildlife and fish habitat.

(2) Protection of Leave Trees. On any operation, trees left for future harvest shall be adequately protected from damage resulting from harvest operations. This may be done by locating roads and decking operations so as to minimize damage to, or loss of, residual trees.

(3) Soil Protection. The NRD Manager shall select for each harvesting operation, the logging method, size of equipment, and type of equipment best adapted to the given slope, landscape, and soil type.

In so doing, he shall:

- (A) Avoid tractor or wheel skidding on unstable, wet or easily compacted soils, and on slopes which exceed 35 percent, unless operations can be conducted without causing deep soil disturbance or accelerated erosion.
 - (B) Locate skid trails where sidecasting is kept to a minimum.
 - (C) Uphill cable yarding is recommended. Use a yarding system that will minimize soil disturbance when downhill yarding or when yarding across high risk areas.
- (4) Landings, Skid and Fire Trail Locations. Landings shall be at minimum size and shall be located on stable areas.
- (A) Location of landings in riparian management zones shall be avoided. Landings shall be located on firm ground above the high water level of any stream. Landings shall not be placed on unstable areas or where excessive excavation is required.
 - (B) Skid trails and fire trails within riparian management zones should be avoided, except when using temporary crossings.
- (5) Drainage System. For each landing, skid trail, or fire trail, an adequate drainage system that will control the dispersal of runoff water from exposed soils will be installed by:
- (A) Maintaining cross-drains, dips, water bars and other diversions to prevent soil from entering waters of the Reservation.
 - (B) Diverting or water barring all tractor or skidder trails before the rainy season.
 - (C) Leaving or placing debris and re-establishing drainage on landings after use to guard against future soil movement.
- (6) Waste Material Treatment. Operators shall leave or place debris, overburden and other waste material associated with harvesting in such a location as to prevent its entry by erosion, high water, or other means into waters of the Reservation. Operators shall:
- (A) Fell trees in a manner to minimize breakage.
 - (B) Stabilize potentially unstable or erodible soils by seeding or other suitable means and shall consider using game forage plants.
 - (C) Remove from the forest waste from logging operations, such as crankcase oil, filters, grease and oil containers, machine parts, old wire rope, and used tractor tracks, immediately following termination of harvesting operations. Operators shall not place materials in waterways.

(7) Protection of Waters. Any operation shall retain a riparian management zone along each side of a Type 1, 2, or 3 Stream. See Riparian Management Zones.

(8) Operations shall be conducted in riparian management zones using the practices outlined in the Riparian Management Zones section.

(9) Protection of Habitat. Provision shall be made for shade, wildlife habitat, soil stabilization, and water filtering effects of forest vegetation in riparian management zones adjacent to streams and other bodies of water as outlined in the Riparian Management Zone section

(10) Site Utilization. When harvesting plans include leaving a residual stand, reserved growing stock should be of desirable species, form, vigor and crown position, which will assure adequate utilization of the site for efficient production or forest products.

(n) CRITICAL AREAS:

(1) The NRD Manager shall design harvesting practices to assure the continuous growing and harvesting of forest tree species by suitable economic means, and also to protect soil, air, water, wildlife and recreational resources.

(A) An operator shall obtain prior written approval before operating near or within the following areas:

(i) Critical wildlife or aquatic habitat sites that are listed in the approved Tribal NRMP.

(ii) Habitat sites of any wildlife or aquatic species classified by the U.S. Fish and Wildlife Service as Threatened or Endangered.

(iii) When conducting operations in or along wetlands or along lakes, springs, seeps, or wet meadows, protect soil and vegetation from disturbances which would cause adverse effects on water quality, quantity and wildlife and aquatic habitat.

(iv) Sites of cultural or paleontological interest or significance.

(o) HIGH RISK SITES:

(1) Obtain prior written approval before conducting harvesting operations on high risk sites.

(2) Written plans will describe how harvesting operations will be conducted to minimize impact upon soil and water resources.

(A) Written plans may include the following items:

(i) Yarding systems that will minimize soil disturbance.

- (ii) Establishing or maintaining plant species that will enhance slope stability in harvesting areas.

Part III
Annual Review

(p) ANNUAL REVIEW:

(1) The NRD Manager shall meet with the Timber and Fish & Wildlife Committees each year to review the Forest Practices Ordinance relative to sufficiency. The Tribal Council shall receive a summary of the meeting or meetings that result in recommendations for revisions to the Ordinance.

Part IV
Enforcement

(q) ENFORCEMENT:

(1) The Tribal Council hereby authorizes the NRD Manager to enforce this Ordinance. If the NRD Manager determines that a violation of this Ordinance has occurred, then the NRD Manager shall notify the operator in writing that a violation has occurred. The notification shall specify the action the operator shall take to prevent further damage, and/or to restore the area to its previous state.

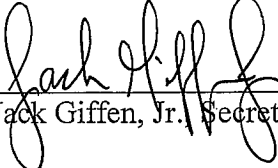
(2) If damage occurs that is irreparable, then action such as suspension of operations, and/or a fine to recover damages may be levied against the operator by the NRD Manager.

(3) Any operator subject to such action may appeal to the Tribal Court. The appeal must be filed with supporting reasons within 14 days of mailing of the NRD Manager's decision. The decision by the Tribal Court shall be final.

(4) The Tribal Council hereby authorizes the NRD Manager to carry out the applicable terms of any agreement entered into between the Tribal Council and any Federal, State or local law enforcement agencies for the enforcement of Tribal, Federal, or State laws on Reservation lands.

Some of the information contained in this Ordinance was taken from the Oregon Forest Practice Rules, Northwest Oregon Region.

I certify this to be a true copy of the Confederated Tribes of the Grand Ronde Community of Oregon Forest Practices Ordinance.



Jack Giffen, Jr., Secretary